Bat Emergence Survey
Dobroyd Mill, Hepworth

Report reference: R-2513-02

Report Title:	Bat Emergence Survey Dobroyd Mill, Hepworth
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Brooks Ecological
Grounded advice

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Summary Statement

Emergence survey has confirmed the presence of a non-breeding day roost used by a single common pipistrelle bat.

Destruction of the roost required to facilitate the conversion of the building will require a Natural England License. A rationale and method is presented for registration of the site under the Low Impact Class Licence.

Introduction

1. Subsequent to the recommendations made in Brooks Ecological's Preliminary Ecological Appraisal (R-2513-01), detailed bat survey was commissioned at Dobroyd Mill, Hepworth (SE 164 072).

2. Information relating to local and legal status of bats and past work carried out at the site is provided in report R-2513-01 & R-1352-01, and is not repeated here. However, these reports should be read in conjunction for full context.

Method

3. Brooks Ecological specialise in bat surveys ranging from individual buildings through to complex sites requiring numerous visits with large teams. In terms of the survey effort, number of personnel required and number of visits required to be able to properly evaluate the use of the building(s) by bats, we refer to the Bat Conservation Trust Survey Good Practice Guidelines (2016). However, these guidelines are not prescriptive and we approach each site individually as required using our professional judgement and significant experience base.

Figure 1- Site Plan

4. In this case, 3 visits with a team of up to 5 surveyors were deemed necessary to fully evaluate the potential use of the site for roosting. Surveys were carried out with

surveyors positioned around the building to cover all aspects where bats could potentially emerge, and to establish activity levels around the site.

5. The surveyors, using heterodyne detectors, were in place at least half an hour before dusk and left once all species of bat would be expected to have left a roost and patterns of activity within the site had been appraised. Conditions and dates are summarised in table 1 below:

Table 1 Survey summary

Date	Survey type	Temp. Start/End	Weather	Invertebrate activity
28/06/16	Sunset: 21:40	12°C - 12°C	Full cloud cover, still, light drizzle at times	High
12/07/16	Sunset: 21.30	13˚C - 13˚C	Clear, light breeze, dry	High
28/07/16	Sunset: 21.10	16˚C - 14˚C	Fine, dry, calm, 10% cloud	High

6. Survey and assessment was directed by Sam Kitching BSc (Hons) Grad CIEEM. Sam has over 4 years' experience of carrying out bat surveys in a professional capacity and is registered to use the Class Survey Licence WML CL18 (Bat Survey Level 2). He is also an active member of the West Yorkshire Bat Group.

Results

Survey 1 – 28th June 2016

7. The first bat seen was common pipistrelle foraging to the west of the Site around the woodland surrounding the western valley. This bat was seen to arrive in this area following the tree line from the north at 21:41, 1 minute after sunset. The time of arrival suggests it is roosting nearby but it was clearly seen to arrive from off site. This bat was joined by two further common pipistrelles. Constant foraging by up to three bats was seen in this area until approximately 22:00.

8. Three bats were seen to take various routes commuting over the Site from west to east, observed at 21:47, 21:55, and 22:07. These are attributed to being the bats which were observed foraging to the west. One bat was observed passing over building three while two were seen commuting around its northern gable, briefly foraging in the court yard between buildings 3, 2 and 4.

9. A single common pipistrelle was observed foraging within this courtyard arriving on Site at 22:11. This bat foraged until approximately 22:18 before leaving to the east.

10. A single myotid species bat was observed during the survey. This was seen commuting in a south easterly direction along the western edge of the valley trees. It is not suspected to have emerged from within the Site.

Survey 2 – 12th July 2016

11. All bats observed during the second survey were common pipistrelle; the first encountered being 2 bats arriving in the courtyard between buildings 3, 2 and 4, from the north at 21:33. A third bat followed this route at 21:38. Intermittent foraging was noted in the northern part of this courtyard close to boundary trees by up to three bats until 22:10.

12. A single common pipistrelle was clearly seen to emerge from close to a top floor window frame on the eastern elevation of building three, at 21:53, 23 minutes after sunset. This bat foraged within the centre of the courtyard for the duration of the survey. No additional bats were encountered from this point in the survey.

Figure 2

Location of emerging bat seen during 2nd survey

Survey 3 – 28th July 2016

13. With no other roosting suspected around the Site, the final survey was conducted using a small team of surveyors to cover the roost location discovered in the previous survey.

14. A single common pipistrelle was seen to emerge from the same location as discovered on the previous survey, dropping from the eaves of the eastern elevation. This bat left the roost at 21:27, 17 minutes after sunset, moving to forage to the north of this building.

Figure 3

The roost building.

15. Additional bats were seen arriving on Site from the north, as previously observed. Bats foraged intermittently in various locations around the courtyard.

16. Bat activity over the three surveys is summarised in Figure 3 below.

Figure 4 Bat Survey summary

Evaluation and recommendations

17. Following emergence survey work it is concluded that the site supports relatively low activity considering its location, and the range of habitats available, and is not likely to be of significant importance to local bat populations.

18. A single common pipistrelle bat was seen emerging from below the eaves on the eastern elevation of building three on two out of three surveys. This roost is assessed as being a non-breeding day roost, used by a single bat.

19. Although legally protected, this roost structure is assessed as being of low conservation significance. The offence relating to its loss (and potentially the disturbance of the bat using it) can be derogated either under the Bats Low Impact Class License (BLICL) or use of a standard mitigation license. Demolition, or works which would affect this section of the eaves, of this building cannot take place until this provision is in place.

20. In proceeding to use, or apply for use of either license, it will be important that certain conditions are met. These are discussed below in relation to the application site:

Has sufficient survey been carried out - is sufficient information known about the roost and its use?

21. Yes - the site has been surveyed on three occasions during the most recent active season and by experienced / licensed surveyors using suitable teams of assistants.

22. The roost is simple in structure and use - a clear conclusion has been drawn.

23. Should work not commence prior to the next active season (May 2017), further survey work may be required in support of a licence.

Has detailed planning permission been granted for the site and have all conditions relating to wildlife been discharged?

24. Not currently – a planning submission is to be made in the near future. A licence cannot be granted until permission is in place. It will be important that any proposed conditions of detailed permission relating to wildlife are reviewed and addressed urgently.

Can the project satisfy the three licensing tests?

(i) FCS Test (Regulation 53(9)(b) - Can the favourable conservation status of bats be protected?

25. Yes - the roost is of low conservation significance, its loss will not impact on bat populations significantly.

(ii) Purpose Test (Regulation 53(2)(e) - Is the purpose of the proposed activity one which is licensable and demonstrable?

26. Yes - the project would be able to apply under the purpose of 'Imperative Reasons of Over-riding Public Interest' (IROPI), meaning that proof of its economic and social imperative would be required. In presenting the application the ecologist would need to be provided with access to the project's planning consultant and relevant documents.

(iii) The No Satisfactory Alternative Test (Regulation 53(9)(a) - Have alternatives to the proposed activity been considered and ruled out?

27. Yes – In bringing the roost building up to the standard required for dwellings, work must be undertaken to the roof/eaves. You would however need to present information which showed that alternatives in terms of the use of the site, the layout, timing of works had been considered and the design arrived at represents the least disturbing / affecting possible.

28. In terms of demolition, the following method should be agreed under license, but should not be the subject of any condition of planning.

- Prior to any works at the site the ecologist will conduct a site meeting and tool box talk with contractors. This will make clear the licensed method and the principle that should any additional roosts be encountered during demolition that works will stop immediately whilst the ecologist's advice is sought.

- The roost building (figure 3) should be fenced off prior to any demolition works on site and should be retained as the last building to be worked on. This will encourage the bat to move on of its own accord and avoid the chance of it relocating to other crevices in other buildings on site.

- The new roosts committed to in the site layout will be installed prior to demolition of the roost building.

- Once, and only once, a license is in place will any works to the identified roost building (figure 3) commence.

- As the first stage of these works the gutter section and tiles around the roost structure (figure 2) will be removed by the ecologist - safe access will be provided by the developer, or their contractors. The ecologist will confirm the absence of bats, or effect the removal of up to 3 bats to a bat box mounted nearby within the site.

- Once the ecologist has confirmed in writing that bats are absent full works to the roost building can be completed.

Mitigation

29. Natural England will not require specific mitigation for the licensed (BLICL) loss of this roost. However, the addition of two Schwegler 1FQ bat box, installed around the Site will ensure roost features will be available on Site beyond development. Boxes should be installed by, or under the supervision of, the ecologist to ensure that appropriate locations are used.

References

Bat Conservation Trust (2016) Bat Surveys for Professional Ecologists – Good Practice Guidelines

English Nature (2004) Bat Mitigation Guidelines. English Nature, Peterborough.

JNCC (2004) The Bat Workers Manual. 3rd Edition.

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Stone, E.L. (2013) Bats and Lighting. Overview of current evidence and mitigation